

## IN THE CLAIMS

1. (Currently Amended) Gas supply system (3) for a side blowing and/or bottom blowing metallurgical furnace with at least one tuyere (5), which is mounted in the side wall and/or in the bottom of the furnace, wherein gas is conveyed through a line (6) of the gas supply system to the tuyere (5) and through the tuyere to the interior of the metallurgical furnace and emerges there in the form of bubbles, ~~characterized by the fact that~~ wherein the gas supply system (3) has an inflow restrictor (7), which is assigned to the tuyere (5) or is positioned upstream of the tuyere (5) and reduces or interrupts the gas supply to the interior of the furnace at equal intervals of time.

2. (Currently Amended) Gas supply system in accordance with Claim 1, ~~characterized by the fact that~~ wherein the frequency with which the intake restrictor (7) is switched between an open position for unimpeded gas supply and a partially or completely closed position for reduced or interrupted gas supply is greater than 5 Hz.

3. (Currently Amended) Gas supply system in accordance with ~~Claim 1 or Claim 2, characterized by the fact that~~ Claim 1, wherein the inflow restrictor (7) is installed at the mouth of the tuyere, outside the metallurgical furnace.

4. (Currently Amended) Gas supply system in accordance with ~~any of Claims 1 to 3, characterized by the fact that~~ Claim 1, wherein the inflow restrictor (7) comprises a solenoid valve or a servovalve.

5. (Currently Amended) Gas supply system in accordance with ~~any of Claims 1 to 4, characterized by the fact that~~ Claim 1, wherein the system (3) has bypass lines (8) that are assigned to the respective gas lines (6) in which the inflow restrictors (7) are integrated and that each bypass line (8) has a shutoff device (9).

6. (Currently Amended) Gas supply system in accordance with ~~any of Claims 1 to 5, characterized by the fact that~~ Claim 1, wherein it has a control unit (10) for the inflow restrictors (7) for coordinating the in-phase or out-of-phase operation of at least two tuyeres (5).

7. (Currently Amended) Method for operating a gas supply system, for a side blowing and/or bottom blowing metallurgical furnace with at least one tuyere (5), which is mounted in the side wall and/or in the bottom of the furnace, wherein gas is conveyed through a line (6) of the gas supply system (3) and through the tuyere (5) to the interior of the metallurgical furnace and emerges there in the form of bubbles, ~~characterized by the fact that~~ wherein the flow of gas into the interior of the furnace is periodically reduced or interrupted at frequencies greater than 5 Hz.